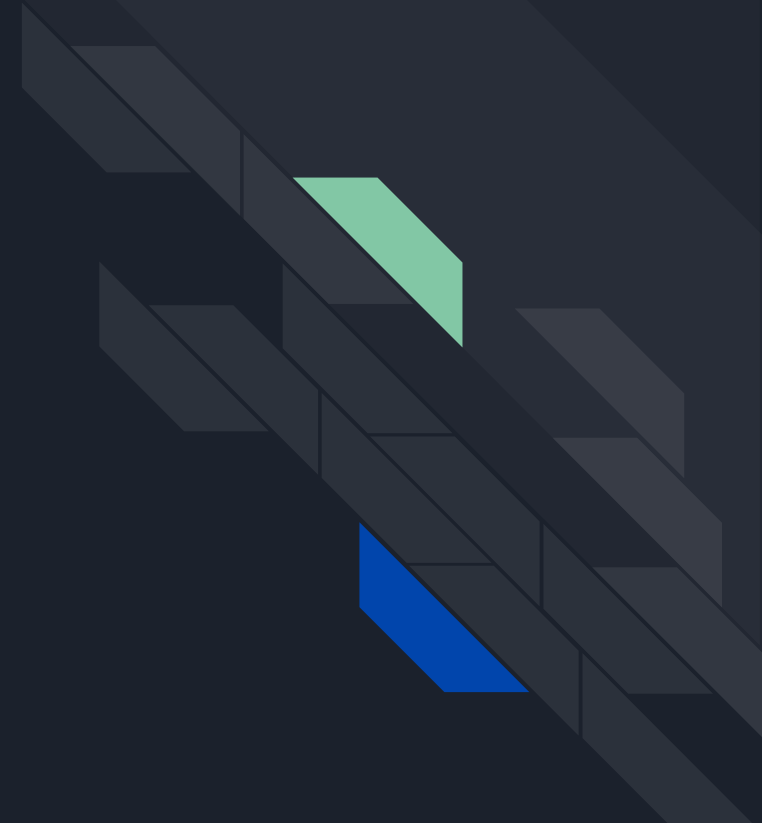




# Growth of the RPS Maker Movement

2015 - 2018...

# An idea...starting 2015



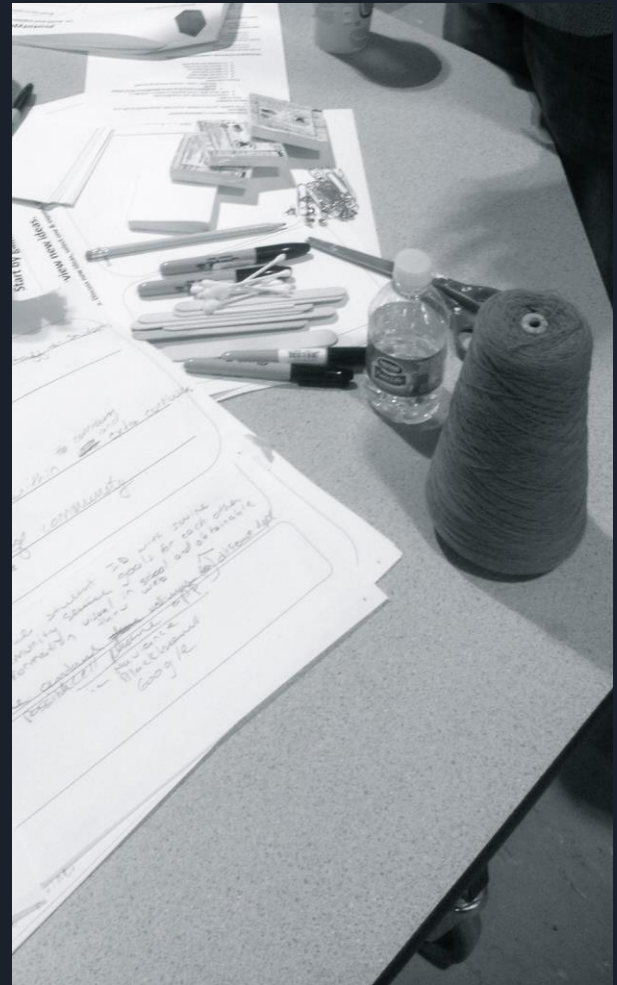


## CHALLENGE

Throughout the school day, our students are often presented with individual, content specific problems. In order to solve them, they are provided with step-by-step sequences to follow, typically with a predetermined outcome. This evolving sequence of courses looks to expose students to a different paradigm and broaden their skill sets.

# INFLUENCES

- Colleges:
  - Stanford D School, MIT Media Lab
- Companies:
  - Google, Apple, Amazon
- Authors / books:
  - Dan Pink: A Whole New Mind
  - Carol Dweck: Grit
  - Tom Friedman: That Used to Be Us
  - Ken Robinson: Out of our Minds
  - Tom Kelley: Creative Confidence
  - Tony Wagner: Creating Innovators



# PROGRAM GOALS

- Thinking creatively
- Collaboration, group dynamics, & team problem-solving
- Innovating through the process of failure and re-design
- Approaching problem solving through empathy
- Directing their own learning
- Ability to adapt to change




A black and white photograph of a workshop wall covered in sketches and notes, with people working on them. The wall is densely packed with papers, some of which are pinned with clips. In the foreground, several people are visible, some holding pens and looking at the papers. The overall atmosphere is one of collaborative design and innovation.

# Innovation through **DESIGN***THINKING*

# High School Programs Evolve

Years 1 and 2- Non-Credit, met once every four days, outside projects, integration of online environments, beginning of partnerships outside of school & establishment of a “makerspace”.





## Evolution of the Space:

Mobile furniture,  
3D printers, &  
storage





A close-up photograph of a child's hands carefully stacking a tall tower of wooden blocks. The child is wearing a red shirt and is focused on the task. The background is softly blurred, showing what appears to be a workshop or classroom setting with other people in the distance. The lighting is warm and focused on the child's hands and the blocks.

# Building on our *SUCCESS*

- REF Grant- Makerspace Expansion, Advanced Science Resources
- Age Friendly
- Retirement
- Growth of Creating by Design- Grade 8
- K-5 STEAM Pilot



**Evolution  
of the  
space:  
Summer  
2017**





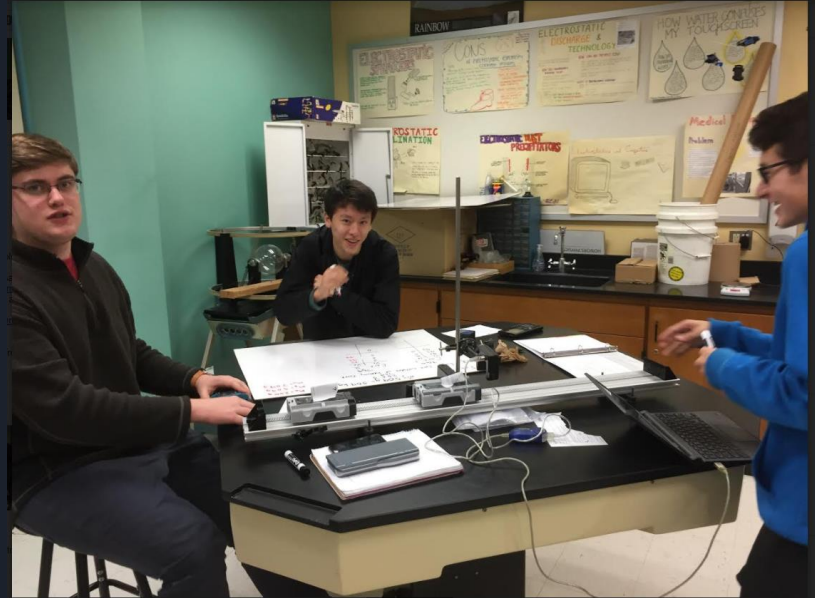
Fall  
2017



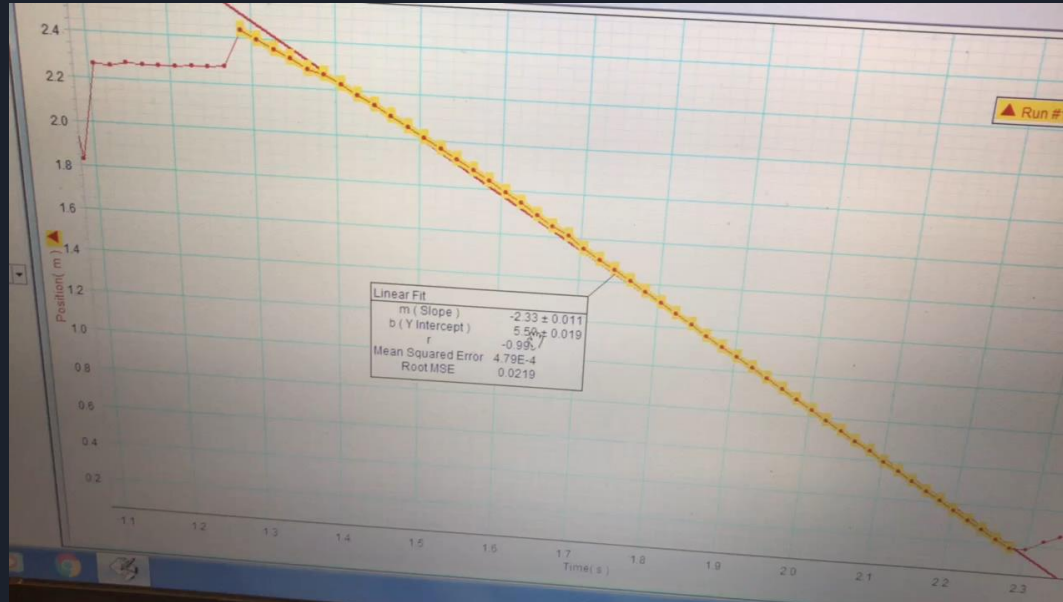




# Integration of Science Resources



# Integration of Science Resources



Students were asked to predict the velocity of the cart when it reached the bottom of the incline. The graph students created using Data Studio was a distance time graph. By using the linear fit tool and selecting the proper part of the graph the students were able to find the slope of the graph which represents the final velocity of the cart.

Cool stuff happens....

# DUTY ASSIGNMENT







# Makerspace #2

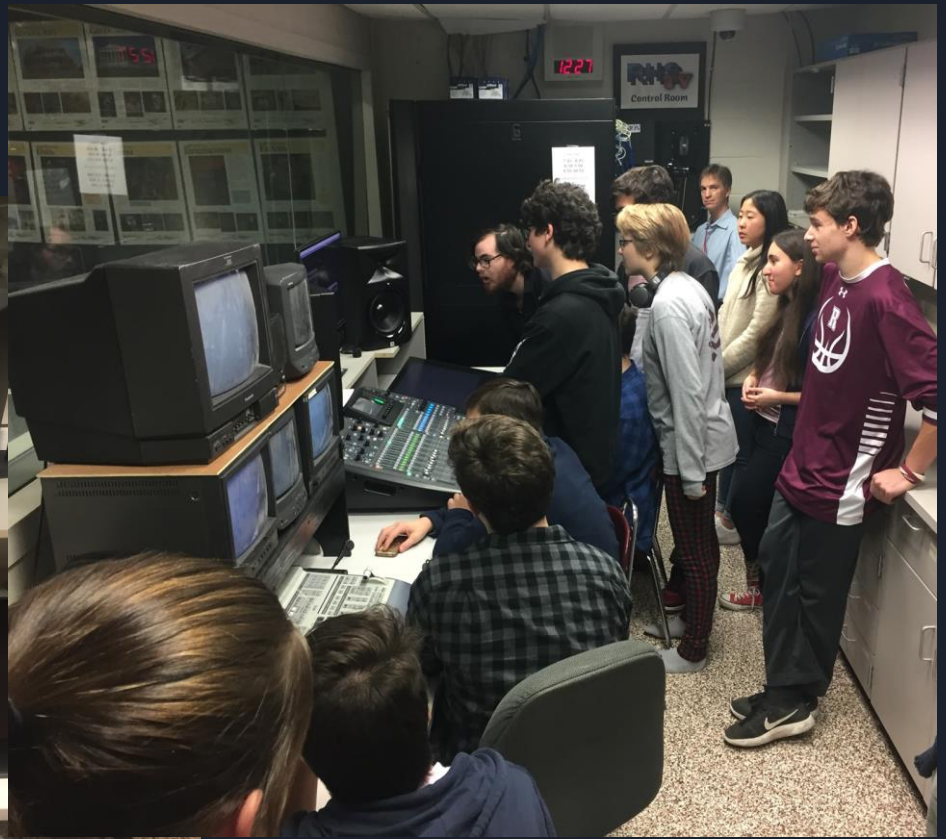
RHS Recording Studio / TV Studio

**Spring  
2017**



**Dec  
2017**





Dec  
2017



# NEW COURSES

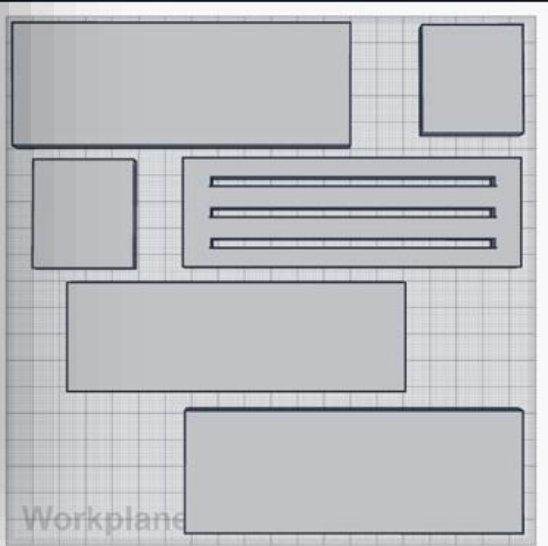
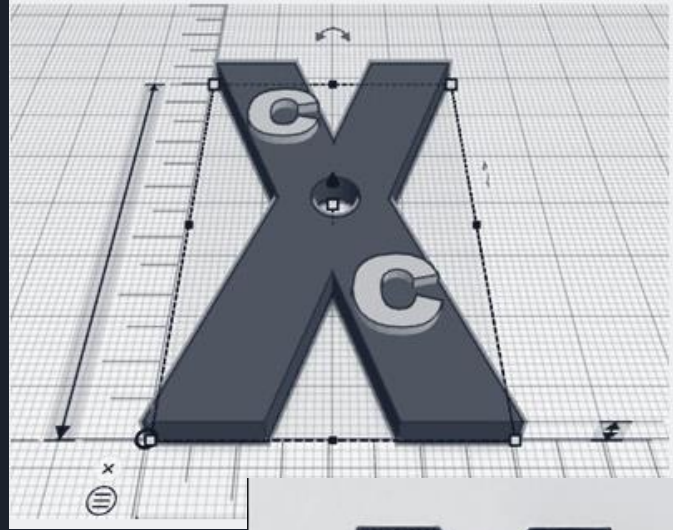
A close-up photograph of a person wearing a VR headset and large headphones. The person's face is visible, looking upwards. The entire image has a strong red color overlay. The text is overlaid on the top left portion of the image.

- Building & Design I & II
- Real World Engineering
- Robotics

2017-18

# Middle School Selective: Creating by Design

Grade 8



Fall  
2017



# K-5 STEAM Pilot

Grades 3-5, Art Teachers working with Classroom teachers

Curriculum Alignment - Summer 2018







# Moving *FORWARD*

- REF Grant
- K-5 STEAM Program
- RHS Makerspace Equipment
- Growth of Creating by Design- Grade 8

A close-up photograph of a child's hands assembling a LEGO structure. The child is wearing a light blue button-down shirt. The background is a warm, out-of-focus wooden surface with various other toys and objects scattered around. The text 'K-5 Articulation' is overlaid on the left side of the image in a large, white, sans-serif font.

# K-5 Articulation

- Development of K-5 curriculum
  - working on interdisciplinary connections
- Resources & Materials Purchase
- Professional Development



# Next Steps: RHS Makerspace

- Develop level 2 courses
- Laser Cutter & CNC router
- Expansion into other HS programs



***THANK  
YOU...***

**I THINK.  
I QUESTION.  
I DESIGN.  
I CREATE.  
I STRUGGLE.  
I COLLABORATE.  
I TRY.  
I SOLVE.  
I INVENT.  
I REFLECT.**

**I LEARN.**